(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 24 December 2003 (24.12.2003)

PCT

(10) International Publication Number WO 03/107318 A1

(51) International Patent Classification7:

(21) International Expenses

(21) International Application Number: PCT/GB03/02550

G09G 3/32

(22) International Filing Date:

12 June 2003 (12.06.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0213989.7

18 June 2002 (18.06.2002) GE

(71) Applicant (for all designated States except US): CAM-BRIDGE DISPLAY TECHNOLOGY LIMITED [GB/GB]; Greenwich House, Madingley Rise, Madingley Road, Cambridge, Cambridgeshire CB3 0TX (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): ROUTLEY, Paul, Richard [GB/GB]; Cambrdige Display Technology Limited, Greenwich House, Madingley Rise, Madingley Road, Cambridge, Cambridgeshire CB3 0TX (GB). SMITH, Euan, Christopher [GB/GB]; Cambrdige Display Technology Limited, Greenwich House, Madingley Rise, Madingley Road, Cambridge, Cambridgeshire CB3 0TX (GB).

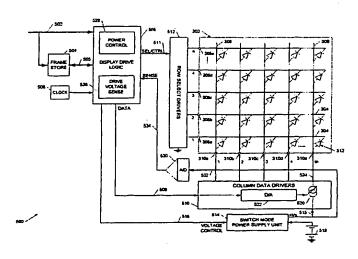
- (74) Agent: MARTIN, Philip, John; Marks & Clerk, Wellington House, Cambridge CB1 1BH (GB).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

[Continued on next page]

(54) Title: DISPLAY DRIVER CIRCUITS FOR ELECTROLUMINESCENT DISPLAYS, USING CONSTANT CURRENT GENERATORS



(57) Abstract: Display driver circuits are described for driving an organic light emitting diode display, particularly a passive matrix display with greater efficiency. The display (302) comprises at least one electroluminescent display element, and the driver including at least one substantially constant current generator (520) for driving the display element. The display driver control circuitry comprises a drive voltage sensor (526) for sensing a voltage on a first line in which the current is regulated by said constant current generator; and a voltage controller (528) coupled to said drive voltage sensor for controlling the voltage of a supply (514, 515) for said constant current generator in response to said sensed voltage, and configured to control said supply voltage to increase the efficiency of said display driver.

BEST AVAILABLE COPY